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Visual Communication in Large-Circulation U.S. Newspapers

Before and After September 11, 2001

By Linda Jean Kenix

Abstract: Through an examination of 590 front-pages from 10 large-circulation U.S. newspapers during the six months before and after September 11, 2001, this research found an increase in the size and use of photographs, and a decrease in text content and graphics. Further, this research found an increased reliance on visual techniques and principles of composition in the 1,693 photographs and 222 graphics examined. Thus, this preliminary study finds that newspaper coverage of the September 11 terrorist attacks may have signaled a shift in the use and application of visual imagery within the daily large-circulation newspapers examined for this study.

The preponderance of scholarly work examining magazines and newspapers has evaluated the meanings and effects of written text while bypassing related visuals. Prevailing wisdom suggests that the primary impact of text-laden print media derives from the text. Yet, visual communication is a vital component to modern storytelling. And on September 11, 2001 the world *watched* visual images of violent death and destruction broadcast live on its television sets. On September 12^t, 2001, newspapers across the globe attempted to communicate this destruction—as well as the shock, the fear, and the horror of the attacks—on their front-pages, primarily via large-scale visuals. Whereas an enlarged headline reflected national tragedies in the past, newspapers on September 12, 2001, ran full-color, full-bleed images that folded out into double-truck spreads. Newspapers that seldom, if ever, reversed white type out of a black background did so on the front-page.

The enormity of the event was communicated with a colossal modification in visual communication. New technologies—new publishing software, printing technology, and improved paper quality—may have had something to do with this phenomenon. However, it is also possible that there is more to this evolution of the visual communication paradigm than

can be explained by technological advance. This study attempts to understand the impact of one major, highly visual event on 10 large-circulation daily newspapers in the United States. In an Aug. 6, 2002, interview with PBS's Charlie Rose, Howell Raines, then executive editor of *The New York Times*, commented that since 9/11, newspapers had paid more attention to visual components of storytelling. The study explores the possibility that a significant adjustment in visual storytelling occurred—an adjustment that may have long-term effects on how newspapers communicate.

This research analyzed the content of 590 front-page photographs and informational graphics in 10 large-circulation U.S. newspapers published during the six months prior to Sept. 11, 2001, and the six months that followed. The goal was to determine whether the number and size of photographs and informational graphics shifted after 9/11. Further, within the close to 1700 photographs and more than 200 graphics examined, this study aimed to discover if the use of cropping and perspective, and the visual principles of composition, such as unity, emphasis, scale, balance, and rhythm, heightened after 9/11. It was thought that an increased presence of these fundamental visual principles in U.S. newspaper front-page photographs and graphics might reveal a greater reliance on visual methods of newspaper storytelling since 9/11.

Visual Communication in Newspaper Content

The Importance of The Visual

Visual images are central to how we “represent, make meaning, and communicate in the world around us” (Sturken & Cartwright, 2001, p. 1). Indeed, scholars, industry executives and practitioners increasingly conceptualize visual imagery as an essential reproduction of informational cues that individuals use to construct their perception of social reality (Messaris, 1994). While the more recent attention to visual modes of communication is compelling, researchers have been examining the importance of visual reception and cognition for many decades. Years earlier, Gattegno (1969) noted that sight itself is simultaneous, comprehensive and synthetic in its analysis. Thus, as Gattegno (1969) notes, visual imagery instantaneously affects how we perceive the message—even before we read a single word.

The importance of visual imagery to the mediated communication process has continued to develop in a culture that has become increasingly visual (Fetveit, 1999; Sturken & Cartwright, 2001) and within media that increasingly rely on the synergy between visual and textual messages (Dyson, 1997). However, research from mass communication scholars has not followed the trends in culture and media (Bissell, 2002). The enormous strength of visual communication coupled with an increasing reliance on audiences to construct their own realities through visual cues that are readily supplied via mass media, calls for a deeper examination of imagery used in different mediated contexts.

Communicating Tragedy

Visual forms of communication, as well as written texts, typically shift immediately following national tragedies. For example, to reflect the enormity of such events as the assassination of President John F. Kennedy and the bombing of Pearl Harbor, newspapers enlarged photographs and type. The day after the Kennedy assassination, *The Evening Star* ran a two-line headline and *The New York Times* ran an even larger three-line headline announcing Kennedy's death. Yet, like most large-circulation newspapers at the time, the images of Presidents Kennedy and Lyndon B. Johnson, were both no larger than two columns wide.

The bombing of Pearl Harbor saw similar coverage that shifted the standard daily news routine but did not appear to fundamentally challenge the use of design principles. *The Baltimore News-Post* ran a two-line headline with a small image, while the *Honolulu Star Bulletin* printed the bold headline "WAR!" with no images. These approaches diverged from daily coverage in terms of font size, but at no time in history prior to Sept. 11, 2001, did newspapers significantly alter their fundamental use of design principles and approach to visual communication through imagery. By the next day, most newspapers had returned to their typical, smaller font sizes.

After 9/11, U.S. newspapers followed historical patterns of coverage in times of crisis in that newspapers across the country ran exceptionally large headlines. Unlike previous national tragedies, however, newspapers also ran larger photos than normally found in front-page news.

It should be noted that although technological advances have made the use of photography to communicate a story easier, such advances alone do not appear to explain this shift. In a review of newspaper front-pages over the last 100 years, large photos can be found as far back as 1906, when *The Boston Post* ran a six-column wide image displaying damage from the major San Francisco earthquake. In 1934, the *Herald Examiner* ran a four-column spread showing a fleet of onlookers examining the body of Public Enemy No. 1, John Dillinger. Newspapers have had the ability to reproduce images at relatively large sizes for nearly a century, albeit not always with high quality. Yet, they have rarely relied on this technique. Perhaps, in the case of 9/11, this reliance on visuals was because, as Howell Raines said, it was “a highly visual story” (Auletta, 2002).

A deeper examination of front-page content across a variety of newspapers (Poynter, 2001) from September 12, 2001, reveals coverage of tragedy that has not been found throughout mass-mediated history. As noted above, in the past, one media response to a large-scale tragedy was to increase the size of text for the event itself and then immediately return to smaller, typical font sizes. However, even immediately following national tragedies, newspapers maintained a strong emphasis on front-page text and continued adherence to traditional visual principles, such as symmetrical alignment and vertical image placement. September 12th found newspapers across the country presenting the terrorist attacks in a decidedly different manner than before. The use of new technology explains how it was done, but not why it was done.

While some papers did set out to record history immediately after the terrorist attacks, the visual coverage of other newspapers appeared to be “reaching out more than documenting” (Moses, Sept. 25 2001, p. 1). Certainly some newspapers, such as *The Star-Ledger*, *The Philadelphia Inquirer*, and *The New York Times*, took a more conventional approach in their reporting of 9/11. However, perhaps acknowledging that most readers were inundated with repeated images throughout the day after the attack, many newspapers took a strikingly different *visual* approach in the following day’s coverage. Moses (Sept. 25, 2001) suggested that this shift, unlike any newspaper content to date, was more “reader-centric than journalist-centric” (p. 1).

On September 12, 2001, design guides that had rarely been broken were completely ignored. Such newspapers as *The Washington Times*, *The Venture County Star*, *The Wyoming Tribune-Eagle*, *USA Today* and *The San Francisco Chronicle* ran images across the entire front-page. *The Winnipeg Sun* rotated the front-page to a horizontal format to better display an elongated image. *The Asbury Park Press*, *The Boston Herald* and *Chicago Sun Times* each ran a full-bleed horizontal image that folded out to a double-truck spread—a move that required removal of the back page ad and the one-inch strip advertisement that normally ran at the base of their covers. *The Austin American Statesman* ran a six-column black-and-white image. *The Diamondback* (College Park, MD), *The South Florida Sentinel* and *The Milwaukee Journal Sentinel* used extra white space around the text and images—a look that more resembled traditional magazine design than a newspaper layout. Finally, *Florida Today* and *The Virginian-Pilot* both ran black behind the images with reversed type.

It should be noted that newspapers have moved toward a more visual presentation with less text in the last few decades (Garcia, 1997). In the eighties and nineties, newspapers began to rely more on photographs, illustrations, infographic items (Utt & Pasternack, 1993) and spot color, such as tint blocks and borders (Click & Stempel, 1982). While there was a rash of redesigns throughout the eighties and early nineties, the overwhelming majority of newspapers – particularly large-circulation dailies -- have held on to their traditional design styles and have stagnated in their use of graphics and visual information (Garcia, 1997). Mario Garcia, a leader in newspaper design was quoted in 1996 as saying that newspapers – particularly U.S. newspapers - had fallen into a lethargy that has made them appear “homogenized, sanitized and decaffeinated” (Shepard, 1996). Yet, in explaining the visual nature of September 12 coverage, Jeff Glick of the *South Florida Sun-Sentinel* said that “even the most diehard ‘word’ people felt that pictures, graphics, and display typography could tell the story with more impact than a lot of narrative” (Moses, Sept. 18, 2001, p. 1).

Hypotheses

News media have received well-publicized criticism in recent years for publishing digitally altered photographs without appropriate labeling (Foss, 1992; Hundertmark, 1991). Widespread knowledge that images can be manipulated easily (Fetveit, 1999, Huang, 2001) may have resulted in an environment where photographs are increasingly devalued in storytelling. Yet, research suggests that visual imagery—photographs in particular—provide more credibility than text alone (Huxford, 2001). In reference to news photographs, Goldman and Beeker (1985) write that the mere proliferation of photography in our culture has resulted in an atmosphere where the image itself is not challenged and that its presence is accepted as necessary. Indeed, photographs have historically been construed as solidifying the objectivity of the messenger (Hall, 1973). In an environment where the manipulation of imagery is infinitely possible, the photograph may have recently witnessed a lack of oppositional reading because of this increased credibility and objectivity. Some suggest that newspapers are using photographs more than the past in an effort to increase their own credibility in a confusing media environment. It may also be that photographs are increasingly used after 9/11 to satisfy audiences that have come to doubt their own surroundings after what most Americans felt were “unbelievable” terrorist attacks.

If newspapers did become more visual after 9/11, then we would expect use of imagery other than photographs, such as informational graphics, would presumably also increase. For the purposes of this study, graphics are defined according to Harris and Lester (2002), who state that news graphics can be categorized as either statistical, such as charts, or datamaps (for example, weathermaps), or nonstatistical, which includes fact boxes, tables, and non-datamaps (such as, a locator map with no statistical information).

Hypothesis 1: The quantity and size of photographs and informational graphics increased in newspapers after 9/11, 2001, regardless of story type.

In accordance with recent research examining visual journalism (Harris & Lester, 2002), photographs are divided generally into spot and general photographs. Spot news photographs

are defined as images that are unplanned and cannot be reshot, such as a photograph of an image of a woman jumping from a burning building or of a car caught in flight as it flipped. In contrast, general news photographs record unstaged “ordinary, general, often unspectacular events in the world community” (Harris & Lester, 2002, 96). Spot news photographs depend on actual news events occurring in the presence of a news photographer. If visual storytelling increased after 9/11, one would expect spot news photographs to increase.

Hypothesis 2: Spot news photographs increased in newspapers after 9/11, 2001, regardless of story type.

Effective visual communication relies heavily on basic principles used both to construct entire pages as well as individual images (Lauer & Pentak, 2002). If indeed newspapers have become more “visual,” effective use of visual principles of composition—such as unity, emphasis, scale, balance and rhythm—would increase. Just as seasoned word journalists come to depend on essential journalistic norms and structures learned over years of experience, designers and photographers rely on fundamental visual principles to help communicate a story.

These five principles of composition—unity, emphasis, scale, balance and rhythm—are essential in effective visual communication. Given the assumption that a visual mode of storytelling in the news has increased after the attacks, it is hypothesized that newspaper designers and photographers would rely on these principles more after 9/11.

Cropping, apparent position of the photographer and perspective are additional components of visual communication that can enhance visual storytelling. Thus, it would be expected that apparent cropping (loose or tight), apparent position of the photographer (above, to the side or below), and perspective (amplified, one point, and two point) would be used more effectively in photographs and graphics within a more visual newspaper industry.

Hypothesis 3: Effective use of cropping, perspective, unity, emphasis, scale, balance and rhythm in photographs and informational graphics increased in newspapers after 9/11, 2001, regardless of story type.

Method

In order to test these hypotheses, a content analysis was conducted of 10 large-circulation newspapers chosen randomly from a comprehensive list created by first compiling an index of all newspapers from a major research university newspaper subscription list. From this list, only newspapers with circulations over 200,000 were included for consideration as the goal was to examine major, large-circulation newspaper dailies in the United States. This resulted in 21 newspapers, which were further divided by the final sample size of ten, meaning every 2nd newspaper was selected from the list of 21 major, large circulation newspaper dailies. Front pages were coded from *The New York Times*, *The Washington Post*, *Los Angeles Times*, *Chicago Tribune*, *The Boston Globe*, *San Francisco Chronicle*, *The Seattle Times*, *Star Tribune*, *The Detroit News* and *The Atlanta Journal-Constitution* newspapers published during the six months preceding and the six months following 9-11.

Front pages from these large-circulation dailies were selected every six calendar days (starting with a randomly selected day) within the one-year period of study. Selecting every sixth day was a simple, direct and randomized method of obtaining at least one date from each week while not being confined to the same day of the week throughout.

Coding

Two graduate students, who specialized in visual communication, were separately trained in the coding procedure but were not informed as to the scope of the project. Both coders were given examples of different value selections within each of the possible variables (see Appendix I). Each photograph was coded along 12 variables, while each informational graphic was coded along 10 variables. It was possible to code up to five photographs and up to three graphics for each date.

Images and graphics were categorized according to the type of accompanying article, the content of the photograph itself and the type of photograph or graphic. In order to ensure objectivity within the content analysis of photographic and graphic material, a coding method was derived from previous visual communication research (see Gattegno, 1969; Harris & Lester,

2002; Lauer & Pentak, 2002; Messaris, 1994). Each photograph and informational graphic was examined and coded according to apparent cropping, the perceptible position of the photographer, the perspective of the photograph or graphic, and visual principles of composition.

Because visual principles are not always immediately transparent to the viewer these techniques were thoroughly reviewed with coders through examples and discussion. Visual principles of composition were defined according to Lauer & Pentak (2002). Unity could be determined within a photograph or graphic through proximity, repetition or continuation. These forms of unity can communicate specific associations to the reader—whether ideological, geographical or symbolic. This concept is closely related to the Gestalt theory, which states that various forms of unification result in viewer perception that a whole visual image is substantively different than the sum of its individual elements. For the purposes of this research, if an element was grouped within a predetermined space with another element, those elements were coded as unified by proximity. If an element recurred in a specific space, then those elements were coded as unified through repetition. Images grouped through a visually continuous line or by their directional unanimity were coded as unified through continuation. It also was possible that no unification was present in photographic or graphic content.

Emphasis within visual elements could occur through isolation or through placement. An element was emphasized, or given importance, through isolation when no other elements surrounded it in the graphic or photograph. Conversely, an element was emphasized through placement when it was positioned in a specific and purposeful manner to draw attention. No evidence of emphasis was also a possibility within the coding scheme.

Obvious use of scale and scale confusion were two components of the scale design principle that could be coded for each photograph and graphic. Scale can communicate subservience or significance when large elements appear heavier and more powerful than smaller ones (Lester, 2000).

The fourth visual principle, balance, can demonstrate strength or isolation. Accordingly, these emotions are found in symmetrical balance and asymmetrical balance. Radial balance and crystallographic balance are often used to denote a sense of overwhelming emotion or chaos. Radial balance exists when all of the elements radiate or circle out from a common central point, whereas crystallographic balance exists when all elements within a photo or graphic carry equal emphasis over the whole format.

Rhythm was categorized as either progressive or alternating. Progressive rhythm was detected when elements gradually shifted in shape, color, value or texture within the frame. Alternating rhythm was present when elements interchanged with one another in a consistent and regulated pattern.

Cropping was classified as either loose or tight. It is important to note that *cropping* is a technique done after the shooting by the photographer, the editor or the designer, while *the photographer does framing* in camera. Clearly, it is impossible to determine whether something had been framed tightly in camera or had been cropped by the photographer or someone else for a specific layout design. Given this uncertainty and given the many definitional applications of the term frame in journalism, the term cropping is used here loosely to describe the resulting image on the page for simplicity.

Tight cropping of an individual or object may denote magnitude while extremely loose cropping can suggest a sense of weakened power. Closely related to these power constructions, a strong perspective looking upward can relay a sense of authority and strength, while a downward perspective can indicate insignificance (Zettl, 1998). Perspective was defined as amplified, one-point or two-point. The amplified perspective introduces a dramatic, dynamic quality in photographs, while one-point perspective presents a “very organized and unified spatial image” (Lauer & Pentak, 2002, 188). Two-point perspective more nearly approximates our visual experience and is easier to attain.

Coding these visual principles of composition, as well as the other visual techniques such as cropping, the apparent position of the photographer, and perspective, helped determine

whether the presentation of photographs and graphics used in newspaper content have become more skilled since 9/11 rather than simply more or less plentiful.

Analysis Techniques

The study used descriptive statistics to describe variables. Inter-observer reliability coefficients provided an indication of the reliability of the coding scheme. Correlation coefficients, coupled with other measures of associations, simple percentages, and frequencies, were used to analyze the data.

Results

In total, 608 front-pages were found, although 18 were removed due to poor reproduction quality. Thus, 590 front-pages were available over the one-year period of study. Due to microfilm availability, 290 newspapers were from dates before September 11, 2001, and 300 from after September 11, 2001. These front pages resulted in 1,693 photographs and 222 graphics that were coded.

Inter-observer agreement between the two coders ranged from 92-100% on the number of articles, photographs and graphics.ⁱ Not surprisingly, war coverage was higher after 9/11, while crime, government, and human-interest stories decreased ($p < .0005$).ⁱⁱ

All of the types of articles coded for this study were cross-tabulated with the different visual principles of composition to test the whether story type had any effect on visual principles used. This was necessary as each hypothesis, at least partially, asked whether story type had an effect on visual principles of composition. In every case, the association was found to be statistically significant (all $p < .005$), suggesting that there was an association between the type of article and the camera position, perspective, unity, emphasis, scale, balance or rhythm. Yet, upon closer inspection, directional measures that better denote importance when large sample sizes are present, proved the associations were inconsequential. Thus, story type did not appear to play a role in dictating visual principles of composition. In each case, when the type of article was used to predict a variable, the reduction in error was nonexistent (0.0%).

The examination of 590 front-pages resulted in 3,079 articles. In examining the Pearson chi-square association between date and the number of articles, there was a significant decrease ($p < .0005$) in newspaper front-pages after 9/11 from an average of 5.63 articles per front-page prior to 9/11 and an average of 5.21 afterwards (Table 1). When examined in shorter time increments throughout the one-year period of study, the association between time of release and number of articles was statistically significant ($p < .0005$), meaning that in addition to examining content before and after 9/11, all of the dates sampled for this study were grouped in twos throughout the one-year period, beginning with the first date sampled. This was done to search for trends occurring over time in relation to 9/11, rather than examining only two points in time (pre- and post-9/11). Grouping individual dates in twos allowed for discovery of detailed, yet subtle, trend information over time that might not be discovered in only two large blocks of data (Norman & Streiner, 1997). After examining the information at this level, it was found that the largest average number of articles during publication prior to 9/11 was 6.13 (between April 27, 2001, and May 3, 2001); however, 5.5 was the largest average number of articles after 9/11. After 9/11, there was a continuous decline in front-page articles, while there was a steady fluctuation in the number of articles found before 9/11 (Figure 1).

Hypothesis 1: The quantity and size of photographs and informational graphics increased in newspapers after 9/11, 2001, regardless of story type.

Of the 1,693 photographs, 842 photographs were from front-pages of newspapers before 9/11 and 851 were from newspapers after this date, resulting in a significant 1% increase ($p < .05$). The association between the size of a photograph and whether the image ran before 9/11 or afterwards was significant ($p < .0005$). There also was a statistically significant relationship ($p < .0005$) between the size of a photograph and its publication within smaller two-date time periods throughout the one-year study. At this level, the smallest average number of photographs running before 9/11 was 2.35, while the smallest average afterward was 2.94 photographs (Figure 1). While small, there was a consistent, and statistically significant ($p < .05$)

increase in image size after 9/11. It should be noted that it is possible to achieve statistical significance with such a small increase in image size due to the large sample size.

Further, the average size of a photograph in square inches was 6.415 before 9/11 and 7.64 afterward 9/11 (Table 2), a 16% increase. The relationship between the size of a photograph and whether the image ran before 9/11 or after 9/11 was significant ($p < .0005$). When the date of the photograph's publication was used to predict the photograph's size, Eta indicated an 11.3% reduction in error, suggesting an important and strong level of significance.

Phi and Cramer's V, other non-parametric measures of association that are helpful with extreme quantities (Norman & Streiner, 1997), resulted in a weak but positive relationship between the two variables (.202). This degree of association ranges from 0 to 1. If there were no association at all, this measure would equal zero. This finding reconfirms a positive and relatively strong relationship between the size of the photograph and date of publication.

There also was a significant relationship ($p < .0005$) between the size of the photograph and time measured in two-date increments throughout the one-year period. When examined graphically (Figure 2), one can see that the average size of photographs continued to rise after 9/11. Before 9/11, the smallest photograph averaged 4.94 square inches (Table 2), whereas the smallest photograph average after 9/11 was 6.22 square inches, resulting in a significant difference ($p < .0005$).

The number of informational graphics showed an inverse pattern when compared to photographic content. Front-page newspaper graphics decreased from 118 before 9/11 to 104 after 9/11, translating to an almost 12% decrease. Although the decrease was not significant when measuring the difference between the number of graphics published before or after 9/11 ($p = .348$), the decrease was significant when measured against smaller time intervals throughout the period studied ($p < .0005$). Thus, when measuring time in smaller increments, rather than two large time blocks of pre and post 9/11, there was a significant decrease in graphics over the entire time period sampled.

Graphics showed a decline in size as well as in quantity. The average size of an informational graphic before 9/11 was 1.43 square inches, compared with 1.23 square inches afterward, a 16.5% decrease in size. Again, this relationship was not significant ($p = .029$) when evaluated as two periods of time (pre and post 9/11), but was found to be significant ($p < .0005$) when evaluated in two-date increments throughout the one-year study.

In sum, the quantity and size of photographs increased after 9/11 2001, regardless of story type. On the other hand, there was a significant decrease in the size of informational graphics when measured in smaller intervals over the entire year-long study. Hypothesis 1 was partially supported, given the conflicting findings.

Hypothesis 2: Spot news photographs increased in newspapers after 9/11, 2001, regardless of story type.

The type of photographs used in newspaper content shifted after 9/11. The most dramatic shift was within spot news photographs, with a positive 8.5% post-9/11 increase ($p < .0005$). General human-interest photographs decreased almost 6% after 9/11. The remaining four categories (general news, general sports, spot sports, spot human interest) were generally stable across time. Hypothesis 2 was supported.

Hypothesis 3: Effective use of cropping, perspective, unity, emphasis, scale, balance and rhythm in photographs and informational graphics increased in newspapers after 9/11, 2001, regardless of story type.

Evidence of unity in photographic content increased 3.7% after 9/11, emphasis increased 6.4%, scale 3.2%, and rhythm 6% (Table 3). Balance decreased by of 1.7%. All of these shifts were significant (ranging from $p = .001$ to $p < .0005$). The strengths of these associations were weak, but all remained positive. Although unity and emphasis in photographs were dropped from this study due to low inter-coder reliability scores, it is interesting to note that unity through proximity in photographs was most frequently used (13%) with unity through repetition used in 5.1% of photographs, followed by unity through continuation (1.82%). Emphasis by placement was the predominant mode of accentuating a subject (61%). Photographs were over

five times more likely to show an obvious demonstration of scale, and scale confusion was not found. Asymmetrical balance was used in photographic content more than the radial, symmetrical and crystallographic balance techniques combined. Finally, progressive rhythm was used 4% more than alternating rhythm.

Unlike unity in photographic content, unity in graphic content produced an ample inter-coder reliability score and was included for study. Unity in graphic content increased 1.5% after 9/11, emphasis increased 2%, scale 2%, balance 7.4% and rhythm 13.6%. The association between the date of publication and both balance ($p < .002$) and rhythm ($p < .003$) were significant. However, the association between the other three visual principles and date of publication were not significant (ranging from $p = .067$ to $.205$). The strength of the significant balance and rhythm associations remained positive (phi values of .02 and .163 respectively).

The increase in graphic unity before and after 9/11 was wholly due to an increase in unity through repetition. Emphasis by isolation was the predominant mode of accentuating a subject. Obvious demonstration of scale was the only scaling method found, and scale confusion was never found. Asymmetrical balance was the most commonly found balance technique (38%), and progressive rhythm was used 19% more than alternating rhythm.

There was an increase after 9/11 in the number of photographic images where tight cropping was evident (1.3%), however subjects in photographic images were still more likely to be loosely cropped than to be tightly cropped in the frame. Obvious camera placement increased 7.1%, and apparent perspective alterations increased 2.1% over the same time period. All of these shifts were significant (ranging from $p = .001$ to $p < .0005$). The strength of these associations was weak, but all remained positive (phi ranging from .056 to .087). The camera was placed below and above the subject almost equally (12.1% and 11.2% respectively). Finally, one-point perspective was most evident in photographic content.

There was a decrease after 9/11 in the number of graphic images where tight cropping was evident (11.2%). Evidence of perspective in graphics increased 3.7 percent during the same

time period. However, the relationship between the date of publication and cropping and perspective was not significant ($p = .055$ and $.426$ respectively).

In sum, of the 15 variables related to visual principles and techniques of composition (eight pertaining to photographs and seven related to informational graphics), only two showed a decrease in presence after 9/11. Eleven of the 15 relationships between the principles used in visual composition and date of publication were significant, with all significant relationships showing a positive strength in association. Of the four remaining relationships not found to be significant, three pertained to informational graphics (crop, perspective and scale of graphic). Therefore, even barring the exclusion of unity and emphasis for photographic images, Hypothesis 3, was supported for photographs but not for informational graphics.

Discussion

For the one-year period of study examined here, the data supports the overall hypothesis that 9/11 may indeed have signaled a shift in the use and application of photographs and informational graphics within the daily large-circulation newspapers examined. The number of articles on the front-page of the newspapers studied declined during the period of examination. This may be due to the fact that an increased reliance on pictorial information took up available column space. This research found a significant increase in the number and size of photographs after 9/11. While remaining significant, the change in sheer numbers was slight compared to the shift in size that occurred. It should be noted that the size of the text alone in articles was not directly measured. Therefore, the smaller number of stories could have resulted from more in-depth writing and longer text. Yet, it is typical that articles on the front page carry no more than one accompanying photograph each, if any. Given that the change in the number of photographs was slight, while the shift in size of photographs was larger, a reasonable explanation is that photographic size was increased at the expense of article length. Future studies including content analysis of articles and measurements of article length would offer perspective on this point.

The increase in size and number of photographs could also be interpreted as a reflection of the increased availability and use of digital cameras. Yet, evaluation of technical trade documents, such as *Shutterbug*, *PhotoZone*, *British Journal of Photography*, *Photographic*, and *Popular Photography*, revealed no significant developments during the second six months of this study that might have explained increased use of cameras.

Another possible interpretation of the increase in photographic size relates to the presence of more images found in general throughout newspaper content. Barnhurst and Nerone (1991) found that newspapers have progressively used larger photographs on front pages from 1885 to 1985. Yet, in their more recent work (Barnhurst & Nerone, 2001), they argued that newspapers have not necessarily seen a continual increase in imagery throughout history, but, rather, that newspaper design has reflected the public role that journalism has sought to exert, giving newspapers a distinctive look at specific historical moments. Newspaper designer Mario García (2002, March 7) argues that newspapers have more recently ignored the importance of a central visual impact on their front-pages, suggesting that at least one large photograph is not the norm in modern newspaper design. Certainly, if photographic image size had been increasing continually over the last 100 years, newspapers would look very different than what we have today. However, future research examining imagery over time, as well as specifically in relation to 9/11, is needed to determine definitive interpretations of this information.

The increase in photographic size may also be due to a growing acknowledgement that larger images simply attract attention much more than smaller images (Bignell, 1997). Editors and business managers struggling for higher circulation numbers could be facing an economic incentive to increase photographic size in order to increase viewing attention in the hopes of subsequently increasing readership.

A further alternative explanation of the increased reliance on photography could be simply that the events after 9/11 were so vivid that they compelled and even required more emphasis on photographic images. For example, the ensuing war in Afghanistan may have

created such dramatic visuals that editors decided they warranted larger play on front pages. This possibility can only be disputed through a broader longitudinal study examining content.

This research also found a decrease in the number and size of informational graphics after September 11, 2001. These findings may suggest that the newspaper industry responded to the publics' need for verifiable information—and the credibility of photographs continued to reassure a society wary of an uncertain world after the terrorist attacks. While not having conclusive data to substantiate this correlation, in-depth interviews with newspaper designers and editors would be particularly illuminating in unveiling any latent or manifest associations between photographic credibility and the publics' need for verifiable information.

The increase in size and number of photographs after 9/11, coupled with the decrease in article length and size and number of informational graphics, would presumably be barely noticeable by readers, given the subtlety of the shift and the relatively small time frame measured. Yet, minor variations in media can eventually evolve into a complete transformation in approach and execution. In this case, these slight alterations continued throughout the six months measured and warrant future scholarly attention. The minor, yet statistically significant, modifications in visual communication found in this research could be representative of a latent or very purposeful response on the part of newspapers to the gravity of 9/11. Future research, which examines this trend over a longer period of time, will be better able to ascertain any permanent shifts in the visual communication of large-circulation newspapers.

While not examined for this research effort, further research might also examine the placement of photographs on the front-page of newspapers, both before and after 9/11, given that studies have shown readers move from left to right and from the top to the bottom (Lester, 2000). While inevitably linked to the type of content that supports these images, changes in placement might suggest varying levels of importance given to photographs and informational graphics in and of itself.

Visual principles of composition, progressive rhythm, asymmetrical balance, and an obvious demonstration of scale were most commonly used for both photographs and graphics.

However, photographs achieved unity primarily through proximity, while graphics did the same through repetition. Photographs also achieved emphasis through placement, while graphics emphasized elements by isolation. This finding seems to suggest that there are inherent differences in how information is unified and emphasized for an informational graphic as opposed to a photograph. These differences could be helpful in better conceptualizing how visual communicators transmit information and how the public receives this information.

There was a statistically significant relationship found between the utilization of visual principles of composition for communication and the date of publication. This suggests stronger reliance upon visual principles within storytelling after 9/11 within the large-circulation newspapers examined for this study. It is possible that with a greater emphasis on visual imagery in newspapers, visual communicators themselves became more skilled at their craft simply because more was demanded of them. Certainly, it is doubtful that most newspaper designers and photographers are immediately aware of terminology as obtuse as 'crystallographic' rhythm. However, the increase in rhythmic approaches to storytelling through photographs and informational graphics, for example, suggests that more care and skill might be at work in the composition of these elements. Again, in-depth interviews with visual communicators would be helpful to further detect personal reflections of the impact 9/11 may have had on their craft in the newsroom.

Before: Chicago Tribune, June 20, 2001. Copyright 2001 Chicago Tribune. Reprinted with permission.



WEDNESDAY, JUNE 20, 2001



Tribune photo by Jerry Tomasz

'We worked from 7 a.m. to 7 p.m., in return for which they gave us a bowl of soup at lunchtime.'

— Norbert Nadler, former slave laborer

Nazi labor reparations don't meet 1 man's bill

By Ron Grossman
Tribune staff reporter

As belated compensation for his enforced service in the Nazi war effort—working 12 hours a day six days a week for two years and nine months as a slave laborer in a jets and guns factory—Norbert Nadler will receive within the week the sum of \$4,600.

"Well, at least it's more than we got at the time," said Nadler, 78, who describes his World War II experience with dry humor and undiminished anger. "We worked from 7 a.m. to 7 p.m., in return for which they gave us a bowl of soup at lunchtime."

Now a physician in Chicago, Nadler is among an initial group of 10,000 former slave and forced laborers to be compensated for their suffering and unpaid toil during the Nazi era. On Tuesday, representatives of the German government and industry announced in New York that part of a \$4.6-billion fund set up for that purpose has finally been made available for distribution.

■ Holocaust museum's taking of art raises furor, PAGE 7



Tribune photo by David Hume

Homes near the Loop, such as these at 14th Street and Indiana Avenue, are in a hot market.

More own homes, but many still are left out

By Evan Osnes
and Geoff Dougherty
Tribune staff reporters

Despite the economic boom of the 1990s, Chicago made only modest gains over the decade in the number of city families that own their homes, a key barometer of urban stability and prosperity, according to new census data released Tuesday.

In some neighborhoods, particularly trendy ones within walking distance of the Loop, rates of homeownership soared as new town home developments and luxury condo conversions were lapped up like lattes by wealthy white empty nesters and young singles.

But those gains were not shared equally. In many neighborhoods removed from the city center—areas that community activists complain are chronically overlooked by City Hall, developers and lending in-



Chicago

Home ownership up
Home ownership increased by 9.3 percent in Chicago during the 1990s. Most of that growth took place in downtown and the north lakefront.

■ **Neighborhoods with more than 25% growth**

Owner-occupied homes in Chicago

Year	Count
1990	425,259
2000	464,865

stitutions—rates of homeownership stagnated or declined over the 1990s.

For fair development advocates, the first look at the city's housing market after a decade of population growth and construction showed mixed results.

"The gain in homeownership overall is a very positive trend," said MarySue Barrett, presi-

dent of the Metropolitan Planning Council. "The fact that certain groups are lagging behind is disturbing, and it reinforces the need for targeted initiatives to assist communities accessing homeownership."

Overall, the share of city householders that owned their homes rose to 43 percent from 41 percent in 1990.

PLEASE SEE CENSUS, BACK PAGE

Bin Laden troops brag about Cole

Recruitment tape claims disciples bombed U.S. ship

From Tribune News Services

KUWAIT CITY—The Afghanistan-based organization of Islamic militant Osama bin Laden boasts in a recruitment videotape that its followers bombed the USS Cole in Aden, Yemen, an attack that killed 17 American sailors and injured 28 others. The wealthy Saudi appears on the video but makes no direct admission of responsibility.

As the tape was played Tuesday for reporters in Kuwait, authorities in Yemen confirmed the arrest of 13 suspected terrorists, eight of whom were believed plotting to bomb another American target, the U.S. Embassy in Sana'a, Yemen's capital.

The eight were thought to be planning a suicide bombing at

the embassy, a senior U.S. official in Washington said. On Sunday, FBI agents investigating the Cole bombing were pulled out of Yemen because of a threat to embassy security.

The video, which is circulating among Muslim extremists, would represent the clearest link yet between bin Laden and the brazen Oct. 12 attack on the Cole, Yemeni officials have said they have no evidence directly tying the exiled bin Laden to the terrorist bombing of the Navy destroyer, but the U.S. government considers him a prime suspect.

On the tape, images of bin Laden's masked men training at the al-Farouq desert camp in Afghanistan are shown as a rallying song says, "We thank God for granting us victory the day we destroyed Cole in the sea."

The video does not say that it was made or financed on bin Laden's orders, but it contains

U.S. executes 2nd Death Row inmate

Unlike McVeigh, Garza is repentant

By Nafali Bendavid
Tribune staff reporter

TERRE HAUTE, Ind.—Juan Raul Garza, convicted of murdering three men to maintain his drug empire, was executed Tuesday morning in the same death chamber as Oklahoma City bomber Timothy McVeigh eight days earlier.

The 46-year-old Texan had mounted an extraordinary effort to save his life. In addition to petitioning the U.S. Supreme Court and President Bush, Garza sent Bush a videotape begging for his life, and his young daughters also made tearful appeals.

PLEASE SEE EXECUTE, PAGE 15

Chain stores using cheap gas to siphon customers

By Tom McCann
Tribune staff reporter

For years, Catherine McDonough had been a loyal customer of the gas station near her home in Niles. But once the supermarket across the street began selling gasoline 14 cents a gallon cheaper, she quickly changed her allegiance.

On a recent trip, she paid \$1.74 a gallon; she also picked up a carton of milk and some steaks for dinner.

The month-old Dominick's station in Niles is part of a trend just reaching Chicago that takes one-stop shopping to a new level—"hypermarkets" that sell gas extra-cheap in order to lure more shoppers to their stores. Come for the fuel, stay for the produce-section.

"At first, I thought it was weird to see my grocery store with a gas station, but I'm not complaining," McDonough said as she paid at the pump, wiping her Fresh Values card to help realize the savings. "I always come here now. The prices are just too good."

Dominick's has two gas stations in the area while Jewel has five, all in the suburbs. But here and across the country, the chain stores are installing fuel pumps at breakneck speed.

INSIDE

GOOD EATING

The queen of spices

Pepper may be king, but cardamom crowns dishes with an intriguing mix of flavors.

NATION

Condoms on TV

Most Americans approve of advertisements. PAGE 9

SPORTS

Make it B straight

Cubs lose again in St. Louis; Todd Hundley goes on DL.

Sox edge Royals

Shortstop Royce Clayton drives in four runs as White Sox win.

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Weather: Rain early, high 75, low 61
Temperature: High 71, low 56

24 hours a day go to chicagotribune.com

49485-00001

Cuba's small capitalists face less friendly future



Tribune photo by Alex Garcia

Shoe repairer Hector Legra Dominguez makes do with a vintage sewing machine as a small-scale entrepreneur in Havana.

They helped the nation weather an economic low, but the government is making things tougher now

By Laurie Goering
Tribune foreign correspondent

HAVANA—To get to Teresa Zayas' bridal shop you walk up nine flights of stairs, knock on the door to Apt. C, walk through the family kitchen where lunch bubbles on the stove, greet her grandfather resting in the living room and finally arrive at a back bedroom full of white-satin shoes, silk flower bouquets and little ceramic wedding-cake brides and grooms.

"It'll be with you in a minute," says Zayas as she loads a taffeta tuxedo into a carrying bag for a waiting client.

In socialist Cuba, Zayas is a

capitalist exception who, with the government's permission, runs her own business rather than working at a state job.

Across the island, such businesses—reluctantly permitted to soften the economic blow after the fall of the Soviet Union—are coming under pressure as Cuban leaders try to revitalize Cuba back onto the socialist straight and narrow.

"We're not growing capitalist here. It's a totally different approach," noted one Cuban Foreign Ministry official.

For six years now, Zayas—one of more than 150,000 legal pri-

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1979 YEAR — NO. 12 — CHICAGO TRIBUNE

WEDNESDAY, JANUARY 16, 2002

59c

Walker hit with terror charges

Californian accused of conspiracy to kill patriots

By Nathali Bendavid
Washington Bureau

WASHINGTON—John Walker, the young Californian who was captured fighting with the Taliban in Afghanistan, was charged Tuesday with conspiracy to kill Americans and with providing support to terrorists, charges that could result in a life sentence.

At 21, John Ashcroft chose not to prosecute Walker for treason, which would have made him eligible for the death penalty. But Ashcroft also resisted the pleas of those who urged mercy and portrayed Walker as a childlike seer who lost his way.

"Youth is not absolution for treachery, and personal self-discovery is not an excuse to take up arms against your country," Ashcroft said. "Misdirected Americans cannot seek direction in murderous ideologies and expect to avoid the consequences."

Walker, 21, grew up in Marin County, Calif., and as a high school student began showing an interest in Islam. He later traveled to Yemen and Pakistan. Ashcroft emphasized that Walker voluntarily made each of the choices that ultimately took him, wounded and starving, to a medical prison camp near Mazra-e Sharif, Afghanistan, as a U.S. captive.

The government's charging documents, based on long prison interviews with Walker, showed for the first time that the American trained with al Qaeda, the terrorist network, before joining the Taliban's forces. During his training, Walker met terrorist mastermind Osama bin Laden, who



PLEASE SEE TAILMAN, BACK PAGE

Congressional staffers sift through documents supplied by the head of Andersen's audit of Enron.

Key Enron auditor to be fired

By Delroy Alexander and Robert Manor
Tribune staff reporters

The Andersen accounting firm said Tuesday that it would fire the partner in charge of auditing Enron Corp.'s books because he had ordered the rushed destruction of records after learning that federal regulators wanted to see them.

The Chicago-based firm said last partner David B. Dunton called for the deletion of "thousands of e-mails and the disposal of large numbers of paper documents" relating to Enron during a meeting with staff on Oct. 31, shortly after he learned of a request by the Securities and Exchange Commission for information on Enron's audit.

Andersen also said it was relieving the four main partners who managed the Houston office, which was responsible for auditing Enron, of their management duties. And the firm said it is placing three other partners involved in Enron's audit on administrative leave.

The moves are the first effort by Andersen to assign blame since it revealed last Thursday that its employees had destroyed documents requested by investigators probing Enron's stunning collapse.

Andersen's disciplinary actions came as a congressional committee released a report by an outside law firm for Enron that seemed to implicate Andersen. Persistent information about questionable transactions with partnerships that contributed to Enron's collapse appeared to have been disclosed to and reviewed by Andersen, said the report by Houston-based law firm Vinson & Elser.

PLEASE SEE ANDERSEN, PAGE 12

Lawyers' report says probe was curtailed

By Stephen J. Hedges and Melia Marie Garza
Washington Bureau

WASHINGTON—Top Enron Corp. executives last fall curbed an in-house investigation into allegations of financial impropriety within the company's controversial partnership trading program, an accounting scheme that concealed nearly \$600 million in losses and eventually caused the energy giant to file for bankruptcy, according to a confidential review by the company's lawyers.

The 39-page review, obtained Tuesday, was conducted to address Enron Vice President Sherman Watkins' allegations of accounting and ethical improprieties. Enron instructed the lawyers to avoid "second guessing the accounting advice and treatment" provided by Andersen, according to the law firm's report.

The review also noted that Enron did not want a "detailed



PLEASE SEE ENRON, PAGE 14

Palestinian gunmen kill U.S. citizen

2nd Israeli also shot to death

By Stephen Franklin
Tribune staff reporter

HEBRON—Palestinian militants shot to death two Israelis on Tuesday, including an elderly and disabled American citizen who was seized from a Palestinian checkpoint, driven in his car and riddled with at least 20 bullets, authorities said.

The killings were the first of six by Palestinian militants since Palestinian Authority President Yasser Arafat called last month for a halt to all attacks. The same shadowy group of gunmen that claimed responsibility for Tuesday's killings vowed more acts of violence.

"The days of quiet are over," news analyst Alex Palamou wrote in the daily newspaper Yediot Aharonot.

At the same time, however, Palestinian officials met a key Israeli demand by arresting the head of the Palestinian faction that Israel blames for assassinating Tourism Minister Rehavam Zeevi in October, according to news reports.

Israeli officials were skeptical about the arrest of Ahmed Saadat, head of the Popular Front for the Liberation of Palestine.

"Until I see him behind bars, I won't believe it," said Ezzam Ghattas, a spokesman for Israeli Prime Minister Ariel Sharon.

"We've been disappointed so many times and fed up with so



PLEASE SEE SECURITY, BACK PAGE

New security rule has limits

Bag matching to begin Friday

By Jon Hillekitch and Rogers Worthington
Tribune staff reporters

The airlines and their passengers face major changes Friday when new security rules take effect requiring screening of every checked bag—nearly 4 million on an average day—before they are loaded onto planes.

After raising concerns about whether they would be able to comply with the new regulations rushed into law, part of sweeping reforms enacted by Congress last year to tighten security, airline officials said Tuesday they are ready.

The airlines refused to discuss what procedures would be in place Friday. But airline sources and security experts said a severe shortage of bomb-detection equipment to screen baggage is forcing the airlines to rely principally on bag matching: matching every bag to a passenger on the plane.

United Airlines said Tuesday it is testing its system at 11 airports, including O'Hare International Airport. American Airlines said it began experimenting with new procedures at several airports about two weeks ago, and though glitches occurred they have been addressed.

"The diagnostic testing so far has gone very smoothly, which bodes well for our kickoff on Friday," United spokesman Chris Bradshaw said.

But some critics said they doubt that the airlines are prepared to undertake the task.

PLEASE SEE SECURITY, BACK PAGE

Father worked for the love of his family, died for it

Trying to help out his boss, Charles Gordon goes the extra mile and is gunned down

By Matthew Walberg
Tribune staff reporter

Charles Gordon worked as a pizza cook almost every day of the week to help support his wife and seven children, sometimes walking the three miles from his home in Riverdale to a restaurant in Harvey.

On Saturday even though his shift at Arnie's Pizzeria was over, he agreed to run a few deliveries for his boss. One of those deliveries, police said, was a setup: thieves beat him, rifled through his pockets and then shot him in the chest.

They got 80.

Gordon, 35, drove himself to a nearby restaurant where his wife was working and gave police a detailed description of his assailants before he was taken to the hospital. He died Sunday afternoon in St. James Hospital and Health Centers in Olympia Fields.

"He was a hardworking man, and he would want me to be strong," Gordon's wife, Roschelle, said Tuesday at their Riverdale home. "He would want me to care for the children because that's what our lives were all about."

Adam Titus, 17, of Markham, has been charged with first-degree murder and armed robbery in connection with Gordon's death, said Harvey Detective Billy Martin. Charges are pending against a second man, Martin said.

PLEASE SEE SLAYING, BACK PAGE



PLEASE SEE SLAYING, BACK PAGE

INSIDE

METRO



Michael Bilandie dies

Former Chicago mayor and state Supreme Court justice dies of a heart attack.

Award for A-Train

Bears running back Anthony Thomas selected NFL Offensive Rookie of the Year.

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Weather: Snow, high 31, low 18
Tomorrow: Cloudy, high 26, low 12

Keep up with developments in the war on terror at chicagotribune.com



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Figure 1

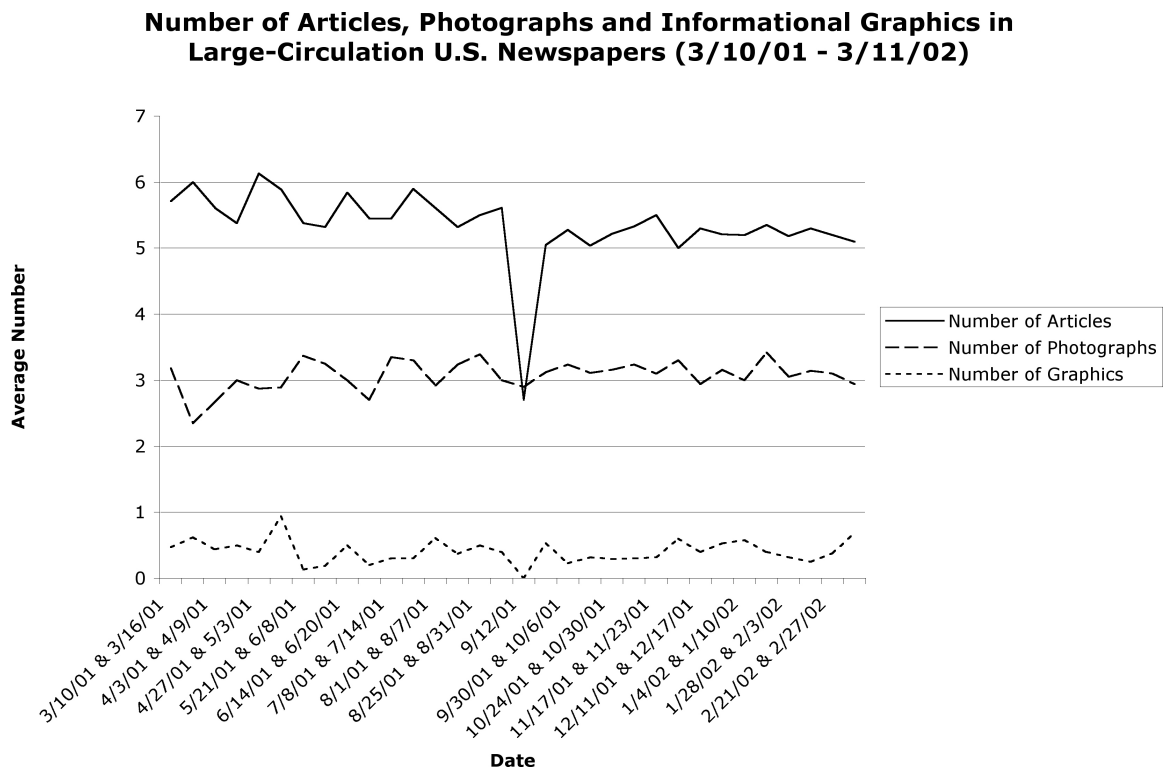


Figure 2

**Size of Photographs in Large-Circulation U.S. Newspapers
(3/10/01 - 3/11/02)**

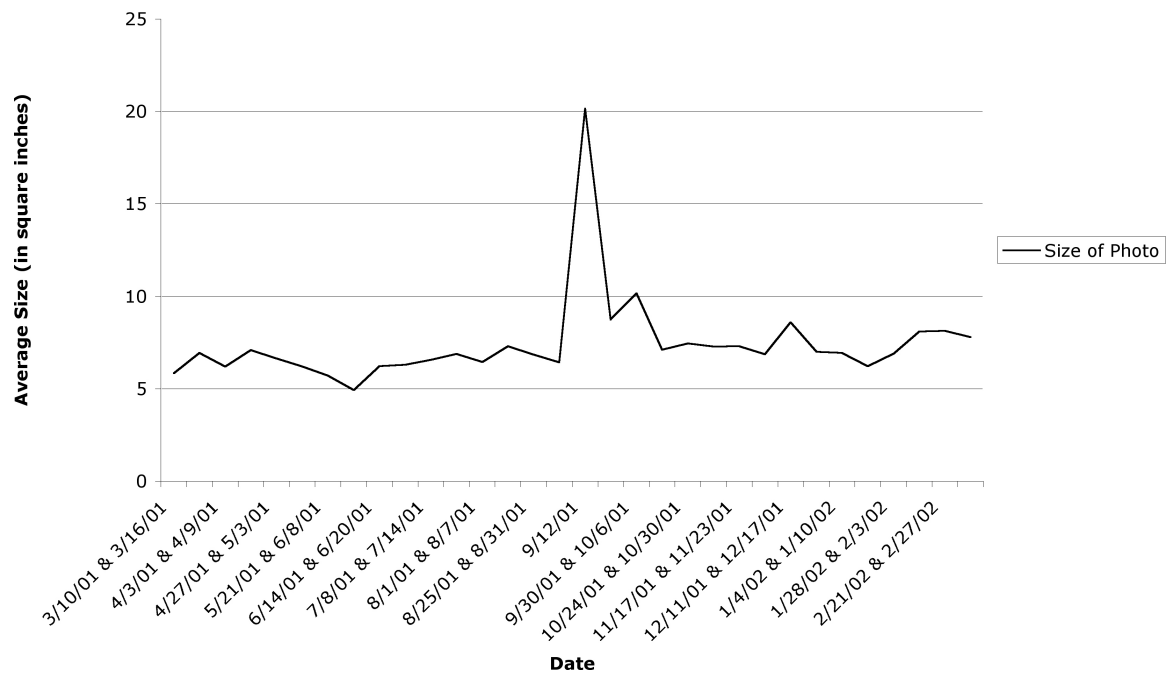


Table 1

Average Number of Articles, Photographs and Informational Graphics in Large-Circulation U.S. Newspapers (3/10/01 – 3/11/02)			
Date	Num ber of Articles	Number of Photographs	Num ber of Graphics
3/10/01 & 3/16/01	5.71	3.18	0.47
3/22/01 & 3/28/01	6	2.35	0.62
4/3/01 & 4/9/01	5.61	2.67	0.44
4/15/01 & 4/21/01	5.38	3	0.5
4/27/01 & 5/3/01	6.13	2.87	0.4
5/9/01 & 5/15/01	5.89	2.89	0.94
5/21/01 & 6/8/01	5.38	3.37	0.13
6/2/01 & 6/8/01	5.32	3.25	0.19

6/14/01 & 6/20/01	5.84	3	0.5
6/26/01 & 7/2/01	5.45	2.7	0.2
7/8/01 & 7/14/01	5.45	3.35	0.3
7/20/01 & 7/26/01	5.9	3.3	0.3
8/1/01 & 8/7/01	5.61	2.92	0.61
8/13/01 & 8/19/01	5.32	3.24	0.37
8/25/01 & 8/31/01	5.5	3.39	0.5
9/6/01	5.61	3	0.4
AVERAGE PRE	5.63		0.42
9.11	125	3.03	9375
9/18/01 & 9/24/01	5.05	3.12	0.53
9/30/01 & 10/6/01	5.28	3.24	0.23
10/12/01 & 10/18/01	5.04	3.11	0.32

10/24/01 & 10/30/01	5.22	3.16	0.29
11/5/01 & 11/11/01	5.33	3.24	0.3
11/17/01 & 11/23/01	5.5	3.1	0.32
11/29/01 & 12/5/01	5	3.3	0.6
12/11/01 & 12/17/01	5.3	2.94	0.4
12/23/01 & 12/29/01	5.21	3.16	0.53
1/4/02 & 1/10/02	5.2	3	0.58
1/16/02 & 1/22/02	5.35	3.42	0.4
1/28/02 & 2/3/02	5.18	3.05	0.32
2/9/02 & 2/15/02	5.3	3.14	0.25
2/21/02 & 2/27/02	5.2	3.1	0.38
3/5/02 & 3/11/02	5.1	2.94	0.69

AVERAGE			0.40
POST 9.11	5.21	3.13	9

Table 2

Average Size of Photographs in Large-Circulation U.S. Newspapers (3/10/01 – 3/11/02)	
Date	Size of Photo
3/10/01 & 3/16/01	5.84
3/22/01 & 3/28/01	6.95
4/3/01 & 4/9/01	6.2
4/15/01 & 4/21/01	7.1
4/27/01 & 5/3/01	6.65
5/9/01 & 5/15/01	6.2
5/21/01 & 6/8/01	5.72
6/2/01 & 6/8/01	4.94
6/14/01 & 6/20/01	6.23
6/26/01 & 7/2/01	6.3
7/8/01 & 7/14/01	6.57
7/20/01 & 7/26/01	6.89
8/1/01 & 8/7/01	6.46
8/13/01 & 8/19/01	7.31
8/25/01 & 8/31/01	6.85
9/6/01	6.43
AVERAGE PRE	6.415

9.11	
9/18/01 & 9/24/01	8.74
9/30/01 & 10/6/01	10.16
10/12/01 & 10/18/01	7.12
10/24/01 & 10/30/01	7.46
11/5/01 & 11/11/01	7.28
11/17/01 & 11/23/01	7.31
11/29/01 & 12/5/01	6.87
12/11/01 & 12/17/01	8.6
12/23/01 & 12/29/01	7
1/4/02 & 1/10/02	6.95
1/16/02 & 1/22/02	6.22
1/28/02 & 2/3/02	6.91
2/9/02 & 2/15/02	8.1
2/21/02 & 2/27/02	8.13
3/5/02 & 3/11/02	7.8

AVERAGE POST	
9.11	7.64

Table 3

Percentage Change Pre/Post Sept. 11th	
in Visual Principles of Composition within	
Photographs & Informational Graphics	
	Change Pre/Post Sept. 11th
Photographs	
Unity	3.7
Emphasis	6.4
Scale	3.2
Rhythm	6.0
Balance	-1.7
Cropping	1.4
Camera	
Placement	7.3
Perspective	2.3
Informational	
Graphics	
Unity	1.5
Emphasis	2.0
Scale	2.0
Rhythm	13.6
Balance	7.4

Cropping	-11.2
Perspective	3.7

Appendix I

CODING SHEET

FOR EACH DATE

1. Newspaper

The Atlanta Journal Constitution

The Boston Globe

The Chicago Tribune

The Detroit News

The Los Angeles Times

The New York Times

The San Francisco Chronicle

The Seattle Times

The Minneapolis Star Tribune

The Washington Post

2. Date

3. Number of Articles

4. Number of Photographs

5. Number of Graphics

FOR EACH PHOTOGRAPH ON FRONT-PAGE (UP TO FIVE PHOTOGRAPHS

POSSIBLE)

6. Size of Photograph

7. Type of Accompanying Article

Other
War
Industrial
Disaster
Human Interest

Crime
Government
Political
Sports

8. Crop of Photograph

None apparent

Loosely cropped

Tightly cropped

9. Content of Photograph	Other	Singular person
	Group of people	Building
	Other object	
10. Type of Photograph	General news	Spot news
	General sports	Spot Sports
	General human interest	Spot human interest
11. Photographer Position	Neutral	Camera below subject
	Camera above subject	
12. Perspective of Photo	None apparent	Amplified
	One point	Two point
13. Unity of Photograph	None apparent	Through proximity
	Through repetition	Through continuity
14. Emphasis of Photo	None apparent	Through contrast
	Through isolation	Through placement
15. Scale of Photograph	None apparent	Obvious demonstration of scale
	Scale confusion	
16. Balance of Photograph	None apparent	Radial balance

	Symmetrical	Asymmetrical
	Crystallographic	
17. Rhythm of Photograph	None apparent	Alternating rhythm
	Progressive Rhythm	

FOR EACH GRAPHIC ON FRONT-PAGE (UP TO THREE GRAPHICS POSSIBLE)

18. Size of Graphic

19. Type of Accompanying Article	Other	Crime
	War	Government
	Industrial	Political
	Disaster	Sports
	Human Interest	

20. Crop of Graphic	None apparent	Loosely cropped
	Tightly cropped	

21. Type of Graphic	Other	Datamap
	Chart	Fact box
	Table	Non datamap

22. Perspective of Graphic	None apparent	Amplified
	One point	Two point

23. Unity of Graphic	None apparent	Through proximity
	Through repetition	Through continuity

24. Emphasis of Graphic	None apparent	Through contrast
	Through isolation	Through placement
25. Scale of Graphic	None apparent	Obvious demonstration of scale
	Scale confusion	
26. Balance of Graphic	None apparent	Radial balance
	Symmetrical	Asymmetrical
	Crystallographic	
27. Rhythm of Graphic	None apparent	Alternating rhythm
	Progressive rhythm	

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Dr. Linda Jean Kenix is a Lecturer in the School of Political Science and Communication at the University of Canterbury in New Zealand. She teaches courses on media and politics, the critical consumption of advertising, and visual communication. Her research has traditionally focused on the representation of marginalized groups in media.

ⁱ The coefficient of agreement (i.e., total number of agreements divided by the total number of coding decisions both had observed) for the two observers averaged .87 for all possible variables (3 newspaper variables; 12 photographic variables, for up to five photographs per date; and 10 graphic variables, for up to 3 graphics per date). In adherence to standard measures of reliability (Riffe, Lacy & Fico, 1998), two variables with inter-observer agreement values below .75 were excluded from this study. Excluded variables were unity of photographs (.647) and emphasis of photographs (.621).

ⁱⁱ Further, when the type of accompanying article was used to predict if the date of publication was before 9/11 or afterwards, there was a 33.8% reduction in error. Meaning that there is 33.8% gain in predicting one categorical table factor when the value of the second factor is known, relative to when it is not known. Using the Eta directional measure, which is a cross-tabulated statistic that is useful when one variable is nominal (type of article) and the other variable is interval (date of publication), the reduction in error increased to 43.0 percent. This Eta measure can be interpreted as the “proportion of the variability of the dependent variable that is explained by knowing the values of the independent variable” (SPSS, 1999, 87). Therefore, the significance value translated to a high level of practical importance as well, meaning that it was possible for the independent variable to clearly identify the categories of the dependent variable.

Front-page industrial articles, political stories and articles focused on sports remained relatively stable both before and after 9/11. None of these three topic categories varied by more than two percent during the time studied.